

San Joaquin River Management Program Advisory Council Meeting

Wednesday, September 15, 2004

Stanislaus County Agricultural Center
Main Conference Room in Stanislaus Building
3800 Cornucopia Way
Modesto, California

DRAFT AGENDA

- 9:00 a.m. Welcome and Introductions
- 9:15 a.m. Announcements
- 9:30 a.m. San Joaquin River Water Quality Management Group – Byron Buck
- 10:15 a.m. San Joaquin River Recirculation Pilot Project – Ernie Taylor, DWR and Chris Eacock, USBR
- 11:00 a.m. Update on San Joaquin Basin National Water-Quality Assessment (NAWQA) Program – Charlie Kratzer, USGS
- 11:45 a.m. Other Business
- 12:00 p.m. Adjourn

SAN JOAQUIN RIVER MANAGEMENT PROGRAM ADVISORY COUNCIL

MEETING HIGHLIGHTS

September 15, 2004
Stanislaus County Agricultural Center
Modesto, California

Welcome and Introductions

Tim Ramirez opened the meeting with announcements. The Bay-Delta Authority has posted a job opening for San Joaquin Valley Regional Coordinator the position is open until filled. More information can be found at the Bay-Delta Authority website at

<http://calwater.ca.gov/EmploymentInformation/CBDAJobOpportunities.shtml>.

In addition, Tim announced that the \$395 million Senate Bill for the authorization of CalFed would be voted on today (approved later that day).

San Joaquin River Water Quality Management Group

Byron Buck discussed the plan for achieving salinity/Boron and dissolved oxygen objectives on the San Joaquin River. It is a multi-agency planning effort to develop tools and management strategies to meet water quality objectives on the lower SJR. The Group's objective is to develop an integrated alternative TMDL implementation plan to meet current salinity/Boron and DO water quality objectives at Vernalis and within Stockton Deep Water Ship Channel. Some of the tools and strategies to meet the objective include flow related actions and load related actions.

Flow Related Actions:

- Recirculation - The Recirculation pilot project has been completed and the results of this are presented in a later presentation by Ernie Taylor, DWR and Chris Eacock, USBR. This will increase flows in the River by recirculating water from the Delta/Mendota Canal to the SJR and back down to the Delta to improve water quality standards at Vernalis and in the Stockton Deep Water Ship Channel.
- Tributary Coordination – Operations (coordinate releases for water quality), water purchases, and transfers and exchanges.
 - VAMP: Analysis of flexible VAMP operations to achieve additional water quality benefits. VAMP is a ten year program that does not allow for major changes until after 2009. However, there is potential to create peak flows (pulses) in the river to aid in fish passage and water quality improvements.

- Management of Urban Wastewater Flows - additional wastewater treatment plant flows where beneficial. Some potential to exchange 50 cfs via Modesto wastewater flows: permit and infrastructure issues.
- South Delta Improvements Project - Barrier Operations will keep 100% of SJR flow in River April 15-May 15. Oct-Nov. Barrier Operations will keep 90% flow in SJR which is sufficient to eliminate any DO problems.

Load Related Actions:

- Sub-basin load reduction - monitoring in progress under Ag Waiver program; inventory of management practices; CA Water Institute study on salt concentration measures; wetlands managers developing data for discharge management; new DOI wetlands water management guidelines. The goal is to move salt out of the SJR system.
- Franks Tract Modifications - Feasibility Study authorized and underway, EIS/EIR 05-06, and begin phased construction '06.
- Accretion Flow Diversion - Initial Feasibility study completed and under review.

Other actions may include installation of a Dissolved Oxygen Aerator and additional real-time monitoring on the SJR system. The draft plan is expected by December 2004. This date may change due to the adoption of Salinity TMDL's by the Water Quality Control Board last week. The tools described in this plan could be on the ground in 2 to 3 years. These proposed projects, management practices, and coordination efforts are long term solutions to the water quality issues that are prevalent in the SJR system.

San Joaquin River Recirculation Pilot Project

Ernie Taylor, DWR, and Chris Eacock, USBR, presented the background information, actions, monitoring, and data collected for the SJR recirculation pilot project. In late July, the SJR experienced critically low flows from Vernalis to Mossdale. For a time, South Delta Water Agency farmers along this reach could not divert water due to insufficient water levels to support their pumps. A multi-agency group decided to conduct a pilot study; recirculating 200 to 300 cfs down the SJR and returning it to the Delta. The water recirculated would originate from the Delta/Mendota Canal, and would be diverted from the Newman Wasteway to the SJR just above the Merced River confluence. This project was made possible under provisions in SWRCB Decision 1641 that authorize DWR and USBR to divert water to ensure that water levels will not be lowered to the injury of southern Delta water users. In addition, further provisions allow SWRCB to authorize short-term diversions for the purpose of conducting a recirculation study. The potential benefits of such a project include increased water levels, lower salinity, higher DO, and the collection of information that could be useful for future long term efforts.

The Newman Wasteway has a maximum capacity of 4,000 cfs and was designed for the emergency release of water from the DMC. From the DMC, about 1.5 miles of the Wasteway is concrete lined; the rest is earthen. The Wasteway is flushed monthly, when the Canal operators test the gates by releasing a small flow. Most of the existing flow in the Wasteway, estimated at 50 to 70 cfs, is from groundwater accretions and ag discharge. Releasing recirculation flows into the Wasteway generated concerns for the potential environmental impacts to the extensive vegetation and wetland habitats within the channel. In addition there were concerns about the mobilization of sediment and other contaminants that have accumulated in the earthen channel of the Wasteway.

On August 19, 2004 the SJR recirculation pilot project began and continued until August 31. The Bureau of Reclamation and the San Luis and Delta-Mendota Water Authority measured the changes in flow and water quality in the Wasteway and the SJR during the 12 day study. Due to the environmental concerns, a rigorous water quality monitoring plan was developed and followed during the course of the study. Staff from Reclamation collected water samples to characterize the water quality in both the Newman Wasteway and the SJR to study. Acute toxicity tests were conducted as well. In addition, real-time data for stage, flow, and salinity were collected from permanent stations located on the SJR at Fremont Ford, Newman, Patterson and Vernalis.

The data will be presented to the State Water Resources Control Board and Regional Water Quality Control Board so they can determine the potential for improvements in water quality in the San Joaquin River as a result of recirculation. Data, photos, and reports will be posted online at http://www.sjd.water.ca.gov/waterquality/sjr_recirculation/index.cfm.

National Water Quality Assessment (NAWQA) Program Assessment of the San Joaquin Basin

Charlie Kratzer, USGS, discussed general NAWQA information, an overview of NAWQA work in the SJ Basin, and the SJ Basin study of "Agricultural Chemicals: Sources, Transport, and Fate" (ACT). The long-term goal of the NAWQA program is to assess the status of and trends in the quality of freshwater streams and aquifers, and to provide a sound understanding of the natural and human factors that affect the quality of these resources.

Current status and trends work includes surface water, ground water, and biological monitoring. There are four surface water trend sites that are sampled 6 times per year: Merced River, Orestimba Creek, San Joaquin River at Vernalis, and the Cosumnes River. The four ground water networks (3 land use studies and a major aquifer study) are being monitored in FY05 for water levels only. A mercury synoptic was completed in 2002, with 8 sites sampled in the SJ Basin for mercury in water, bed sediment, and fish tissue.

In the ACT study, the USGS is evaluating environmental processes and agricultural practices and how they interact to affect the transport and fate of agricultural chemicals in the hydrologic system of nationally important agricultural settings. The ACT study area in the SJ Basin is in the Merced River watershed. ACT monitoring includes wet and dry atmospheric deposition, surface runoff, vadose zone, ground water, and surface water and ground water interactions. Constituents analyzed for include pesticides, CFC age dating, and dissolved gases; major ions, nutrients, and isotopes (O, H, N). Core samples were taken from the saturated zone in the ground water wells and from the streambed in the Merced River and analyzed for bulk density, particle size analysis, iron/sulfide minerals, pesticides and carbon, and mineralogy.

The SJ Basin study of “Transport of Anthropogenic and Natural Contaminants to Community Supply Wells” (TANC) is investigating the transport and transformation of contaminants along ground water flow paths to community supply wells in representative water-supply aquifers. The focus area of this SJ Basin study is in the city of Modesto.

The information collected during these studies will be presented in several reports to be completed within the next three years.

For more information please visit the USGS website for the San Joaquin NAWQA program at <http://ca.water.usgs.gov/sanj/>.

The Next Advisory Council Meeting: is scheduled on Wednesday, December 16 at 9:00 am at the Stanislaus County Agricultural Center.

**ATTENDEES AT
SAN JOAQUIN RIVER MANAGEMENT PROGRAM
ADVISORY COUNCIL MEETING
September 15, 2004**

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